Air Filtration -A Guide for Facilities Management Providers





Air filtration in FM: a guide and examples

ABOUT THIS DOCUMENT

Facilities management (FM) is a difficult balancing act of delivering a reliable customer service in the face of near-constant cost pressures.

At the same time, FM providers are expected to remain skilled and up to date with all manner of systems and technologies that go into today's commercial facilities.

This white paper examines some of the pressures that FM providers face when it comes to the HVAC systems under their care. It reveals some new ways in which making a few small changes can help FM companies deliver greater value to their customers, while also boosting their own profitably. And it highlights how making the right choice of filtration partner is essential for facilities management.



This document shows you the level of service that you should be demanding from your filtration partner.

Fast delivery and high stock availability

Holding large inventories of air filters is neither practical nor cost effective for FM providers. Filter partners should combine comprehensive stocks with a fast, flexible delivery service.

Keeping a stock of air filters at customer sites is often impractical due to a lack of space, but also because it causes trip hazards and fire risks. Supplying various sites from a central warehouse is an alternative solution, but the cost will be high and air filters take up a surprisingly large amount of space. Plus, the amount of capital tied up in filter inventory can spiral quickly when managing a number of sites.

Nevertheless, whether it's everyday filter changes, reacting to an emergency, or making the most of an operational window, FM contractors

need a fast, reliable supply of HVAC filters. Downtime or disruption from an inoperable HVAC system can be a costly, reputation-damaging situation.

With 80 locations on six continents, our supply network is like no other in the industry. We manufacture the full range of products for HVAC air filtration and hold vast stocks across our locations. And, as we manufacture 32 filters every second, we know a thing or two about supplying filters fast. That's why we can deliver high product availability and short delivery times to our FM customers.

The MANN+HUMMEL difference

- Global sales and production network with over 22,000 employees at 80 locations
- High availability and short delivery times
- Consistently high production quality worldwide
- Fast response time to inquiries
- Reduction of inventory levels

Case study: Italian food manufacturer



THE CUSTOMER

One of the world's largest producers of fresh pasta, the customer's production plant had a total air flow rate of 900,000 m³/h.

THE CHALLENGE

The customer was actually quite satisfied with their current filter system. But delivery of replacement filters was extremely slow, meaning filter changes had to be carefully scheduled, and balance operational requirements with product availability. The existing V-cell compact filters were also only rated C for energy efficiency.

THE SOLUTION

MANN+HUMMEL proposed our Aircube Eco compact filter as a replacement for the customer's existing V-cell filters. Not only is Aircube Eco rated A+ for energy efficiency, but we could deliver in a few days from our local distribution centre, rather than over a month that the incumbent supplier was providing.

THE RESULT

MANN+HUMMEL has continued supplying filters to the customer on a regular basis, with dramatically reduced lead times. This has provided the customer with greater flexibility and assurance that production will not be impacted by air filter maintenance. Switching to Aircube Eco also cut the customer's ventilation energy spend by around 25,000€ or 29%.

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Previously, we waited over a month for our filters.
MANN+HUMMEL delivers them in just a couple of days!

Customer logistics representative

Value-adding services

FM providers can't be expected to be experts in everything. Air filtration partners should cut complexity and provide the expertise that FM providers need.

Building technology is becoming more efficient and smarter, but also more complex. Keeping up to date and skilled with new systems is resource intensive and costly - but necessary to ensure regulatory compliance with issues such as energy efficiency, health and safety, and the environment.

That's why it is economically beneficial, and often necessary, for facilities management providers to rely on specialist partners that hold the depth of knowledge and expertise that they lack internally – especially considering the global shortage of skilled workers.

MANN+HUMMEL's expertise and long-standing experience can help FM companies manage their customer's filtration system safely, efficiently and profitably.

We have developed a full range of ancillary services especially for our FM customers that enable them to deliver value-added services and cost-saving measures to their customers, while creating process improvements and new revenue opportunities for themselves.

MANN+HUMMEL FM services

- Energy assessment and filter optimisation
- Delivery, installation, and environmentally friendly disposal of your filters
- Inspection of fire dampers
- Indoor air quality monitoring
- System inspection and monitoring
- Hygiene maintenance and legal inspection
- A single contact person for all questions regarding air filtration
- Knowledge transfer through training

Case study: London Heathrow Airport



THE CUSTOMER

As one of the world's busiest airports, London Heathrow operates out of four terminals, employing over 75,000 people

THE CHALLENGE

Heathrow had already carried out several assessments of its air delivery system, which meant it was already optimized for both energy efficiency and air quality. But, in the spirit of continual improvement, the airport was looking for other ways to minimize operating costs without compromising the passenger experience

THE SOLUTION

Working with the two on-site FM companies, MANN+HUMMEL proposed a full selection of services for the customer's air handling system. This covered everything from air filter supply and fit, on-site stock handling, AHU cleaning and periodic inspection, fire damper testing even monitoring and conditioning of the kitchen extract systems.

THE RESULT

After reconditioning multiple AHUs and installing new filters, Heathrow had a completely refreshed air delivery system. Switching to MANN+HUMMEL dramatically cut complexity from their filter procurement and management too. Now, Heathrow deals with one partner for all their air requirements.



Working with
MANN+HUMMEL
has been a bit of a
game changer for
us. It makes my life
a lot easier!

Engineering & Operations Manager, London Heathrow

This means:

- Less on-site stock handling
- Reduced purchasing requirements and POs
- Fewer supplier requisitions
- Less disruption to operations
- Fewer links in the supply chain
- A single team working on site and in secure areas

High product quality and energy efficiency

Choosing the right air filter is a quick win to cut the energy use of end customers. Filter partners should deliver the right products to help make this happen.

On average, 50% of the energy usage in a commercial building is down to the HVAC system. Of that, 16% is due to the filtration system. Which means that FM providers that manage their customer's HVAC systems control 8% of their total energy costs simply by which air filters they choose to install.

And air filters can differ massively in their energy efficiency performance. Using the Eurovent energy efficiency scheme, an E-rated product can use almost twice the energy than the equivalent A+ air filter. And, as making such a switch typically requires no retrofit works or the associated

disruption, opting for energy-efficient air filters is one of the easiest, quickest and most effective ways of cutting energy usage in a building. Great for supporting clients' efficiency drives, FM providers' own CSR ambitions, and to help activate any energy-saving rebates.

At MANN+HUMMEL, we have placed the energy efficiency of our products as a central pillar of our research and development efforts. Which is why we have more A+ rated products in more filter classes than any other manufacturer. And, with BREEZE – our total cost of ownership calculator – we can devise a filter solution that delivers safe air quality at the lowest possible overall cost and energy consumption.

Energy-saving benefits

- Energy savings of up to 41 % in ongoing operations
- Enormous reduction of lifecycle costs and CO2 footprint
- Reduction of maintenance effort and lifecycle costs
- Support on your way to a climate-neutral building management
- Opportunities for an energy-saving rebate

Case study: German food manufacturer



THE CUSTOMER

A German food manufacturer in the confectionery sector with 7,000 employees and production sites around the world.

THE CHALLENGE

The customer needed an efficient and reliable filter solution for the ventilation system in the production and manufacturing area.

Sugar and other dusts created during meant that the filter system had to be capable of handling high quantities of particulate while also contending with enormous flow volumes – the production plant moved millions of cubic meters of air every hour.

THE SOLUTION

Using our custom Total Cost of Ownership (TCO) tool, MANN+HUM-MEL calculated the filter configuration that would deliver the best possible energy efficiency without compromising on air quality. We selected our Airpocket Eco for its ultra-low energy demand – consuming just 882 kWh/year as tested by Eurovent, the independent trade association.

THE RESULT

The customer achieved remarkable results that well exceeded their expectations in the first year after installation. Energy reductions totalled 442,029 kWh a year, which saved 110,507€ in cost and 93,352 kg in carbon emissions.

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After the success of this project, the customer decided to roll out energy-saving filters from MANN+HUMMEL to all its ventilation systems worldwide.



Learn more about our air filtration solutions on our website

MANN+HUMMEL AIR FILTRATION →

Complete our contact form to arrange a callback

CONTACT US →

